

of which is the use of spiral flutes cut with annular rings. The annular rings cut the thin metal more cleanly, thereby increasing the quality of the threads and improving the grip.

Unfortunately, this approach offers only marginal improvement when used with the thinnest sheet metals, i.e., 18 to 25 gauge (0.0428 to 0.0179 inch), often used for framing members in light commercial and residential construction.

For the Examiner's review, a marked-up copy of the above title and paragraph depicting the amendments thereto is appended hereto in an Appendix A

In The Claims:

Please amend claims 1, 5, 9, 10, 13, and 15. A clean version of each of amended claims 1, 5, 9, 10, 13, and 15 is presented below:

Sub B₁ 1. (Once Amended) A drive pin for the fastening of a material to a sheet-metal framing member with an automatic nailer, said drive pin comprising:

a substantially cylindrical shank having a base diameter;
a head coupled to said shank;

a knurl rolled upon said shank, said knurl having a plurality of substantially parallel spiral grooves, wherein said spiral grooves have a minor diameter less than said base diameter, and wherein each of said spiral grooves subtends an angle of at least 15 degrees relative to an axis of said shank; and

a ballistic tip coupled to said shank and configured to penetrate said material and said sheet-metal framing member under force of said automatic nailer.

Sub B₂ 5. (Once Amended) A drive pin as claimed in claim 4 wherein:

As (amended) said base diameter has a range of 0.0625 to 0.125 inch; and said spiral ridges have a major diameter greater than said base diameter.

Sub B2> 9. (Once Amended) A drive pin as claimed in claim 1 wherein, when said material is sheet metal, said knurl is rolled tight to said head.

As 10. (Once Amended) A drive pin as claimed in claim 1 wherein, when said material is gypsum sheathing, said head is a cupped bugle head.

Sub B2> 13. (Once Amended) A construction assembly effected by an automatic nailer, said construction assembly comprising:
a sheet-metal framing member;
a material attached to said sheet-metal framing member; and
a drive pin attaching said material to said sheet-metal framing member, said drive pin comprising:
a substantially cylindrical shank;
a head coupled to said shank;
a knurl formed of a plurality of threads rolled full upon said shank to produce a plurality of substantially parallel spiral grooves, wherein each of said spiral grooves subtends an angle of no less than 15 and no greater than 30 degrees relative to an axis of said shank; and
a ballistic tip coupled to said shank and configured to penetrate said material and said sheet-metal framing member under force of said automatic nailer.

Sub B2> 15. (Once Amended) A construction assembly as claimed in claim 13 wherein said sheet-steel framing member has a thickness of 0.0179 to 0.0966 inch.

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